

**What is claimed is:**

1. A method of altering the regulation of expression of a gene selected from Class I  $\beta$ -tubulin, tropomyosin-4, kenesin heavy chain and combinations thereof comprising contacting the gene with an effective amount of follicle stimulating hormone (FSH).
2. The method of claim 1 wherein the gene is contained within a granulosa cell.
3. The method of claim 2 wherein the granulosa cell is contacted with FSH at the preantral or early antral stage of follicle development.
4. A method of altering regulation of follicular development, atrophy and /or ovulation comprising exposing immature granulosa cells to an effective amount of follicle stimulating hormone at an early stage of granulosa cell differentiation.
5. A method of altering differentiation of immature granulosa cells comprising exposing the immature granulosa cells to an effective amount of follicle stimulating hormone at an early stage of granulosa cell differentiation.
6. A method of altering beta-tubulin gene expression during follicular development comprising exposing the large preantral and early antral follicles of an animal to an effective amount of follicle stimulating hormone at an early stage of immature granulosa cell differentiation.